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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TRAN, PHILIP B

ART UNIT PAPER NUMBER

2155

DATE MAILED: 05/03/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

2

## Office Action Summary

Application No.

09/773,885

Applicant(s)

FILLEBROWN ET AL.

Examiner

Philip B Tran

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings were received on June 18, 2001. These drawings are accepted by the examiner.

### ***Claim Objections***

2. Claims 1, 8, 11-12, 16-19, 22 and 24 are objected to because of the following informalities :

In claim 1, line 2, there is a redundancy of term "server".

In claim 1, line 3, there is a redundancy of term "transmitter".

In claim 1, line 4, there is a redundancy of term "client".

In claim 8, line 1, "A network of claim 1" should be "The network of claim 1".

In claim 8, line 1, there is a redundancy of term "router".

In claim 11, line 1, there is a redundancy of term "second client".

In claim 12, line 12, "The network of claim 10" is incorrect (typographical error) because claim 12 cannot depend on claim 10. It should be "The network of claim 11".

In claim 16, line 1, "The network of claim 7" is incorrect (typographical error) because claim 16 cannot depend on claim 7. It should be "The network of claim 8".

In claim 17, line 1, "The network of claim 7" is incorrect (typographical error) because claim 17 cannot depend on claim 7. It should be "The network of claim 8".

In claim 17, line 2, "a IEEE 802.11 protocol" should be "an IEEE 802.11 protocol".

In claim 18, line 1, "The network of claim 7" is incorrect (typographical error) because claim 18 cannot depend on claim 7. It should be "The network of claim 8".

In claim 18, line 2, "a Home RFprotocol" should be "a HomeRF protocol".

In claim 19, line 1, "The network of claim 7" is incorrect (typographical error) because claim 19 cannot depend on claim 7. It should be "The network of claim 8".

In claim 22, line 1, "The network of claim 17" is incorrect (typographical error) because claim 22 cannot depend on claim 17. It should be "The network of claim 21".

In claim 24, line 1, "The network of claim 19" is incorrect (typographical error) because claim 24 cannot depend on claim 19. It should be "The network of claim 23".

Appropriate corrections are required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 12 recites the limitation "the second client" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "the router" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "the router" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the router" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 19 recites the limitation "the router" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Appropriate corrections are required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1, 11, 13-15, 21 and 23 are rejected under 35 U.S.C. § 102(e) as being anticipated by Thomas, U.S. Pat. No. 6,498,939.

Regarding claim 1, Thomas teaches a personal wireless network (= wireless network in enclosed environments such as a home or office) [see Fig. 1 and Col. 1, Lines 1-3], comprising :

a wireless server (the server) (= server (1)) [see Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23];

a wireless transmitter (the transmitter) coupled to the server (= a server includes a transmitter or a transceiver) [see Fig. 1 and Abstract and Col. 7, Lines 20-23]; and

a wireless client (the client) capable of wireless communication with the transmitter (= one of appliances (5), (7) and (9) is coupled to the server by a high speed wireless connection (16), (18), (20) wherein the server includes a transmitter or a transceiver) [see Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23 and Col. 7, Lines 37-51].

Regarding claim 11, Thomas further teaches a second wireless client (the second client) capable of communication with the wireless transmitter (= one of appliances (5), (7) and (9) is coupled to the server by a high speed wireless connection (16), (18), (20) wherein the server includes a transmitter or a transceiver) [see Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23 and Col. 7, Lines 37-51].

Regarding claim 13, Thomas further teaches the server is in communication with a Local Area Network (i.e., each appliance is effectively connected to any other appliance via the wireless LAN to the server) [see Col. 4, Lines 65-67].

Regarding claim 14, Thomas further teaches the server is an Internet-enabled device (i.e., the server is connected to Internet service supplier via a high speed connection in order to provide network access to such services for the appliances) [see Col. 4, Line 67 to Col. 5, Line 3].

Regarding claim 15, Thomas further teaches the server is an Internet appliance (i.e., the server is connected to Internet service supplier via a high speed connection in order to provide network access to such services for the appliances) [see Col. 4, Line 67 to Col. 5, Line 3]. This suggests that the server is an Internet appliance.

Regarding claim 21, Thomas teaches a personal wireless network (= wireless network in enclosed environments such as a home or office) [see Fig. 1 and Col. 1, Lines 1-3], comprising :

a wireless serving means (= server (1)) [see Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23];

a wireless transmission means coupled to the serving means (= a server includes a transmitter or a transceiver) [see Fig. 1 and Abstract and Col. 7, Lines 20-23]; and

a wireless client means capable of wireless communication with the wireless transmission means (= one of appliances (5), (7) and (9) is coupled to the server by a high speed wireless connection (16), (18), (20) wherein the server includes a transmitter or a transceiver) [see Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23 and Col. 7, Lines 37-51].

Regarding claim 23, Thomas teaches a personal wireless system (= wireless network in enclosed environments such as a home or office) [see Fig. 1 and Col. 1, Lines 1-3], comprising :

a server subsystem (= server (1) includes a transmitter section and a receiver section (= a transceiver), a steerable beam antenna and a processor) [see Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-31];

a transmitter subsystem coupled to the server subsystem (= a server includes a transmitter or a transceiver) [see Figs. 1-2 and Abstract and Col. 7, Lines 20-23 and Col. 7, Line 52 to Col. 8, Line 17]; and

a client subsystem capable of wireless communication with the transmitter subsystem (= one of appliances (5), (7) and (9), with a transceiver and an antenna, is coupled to the server by a high speed wireless connection (16), (18), (20) wherein the server includes a transmitter or a transceiver) [see Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23 and Col. 7, Lines 37-51].

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).



8. Claims 2, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas, U.S. Pat. No. 6,498,939 in view of Treyz et al (Hereafter, Treyz ), U.S. Pat. No. 6,678,215.

Regarding claim 2, Thomas does not explicitly teach the wireless communication is implementable through a Bluetooth protocol. However, Thomas does suggest the implementation of suitable wireless protocol for communication between server and client [see Thomas, Col. 9, Line 63 to Col. 10, Line 4 and Col. 12, Lines 19-27].

Treyz, in the same field of wireless network communication endeavor, discloses in-home wireless network using wireless protocol such as a Bluetooth protocol [see Treyz, Fig. 2 and Col. 9, Line 66 to Col. 10, Line 24 and Col. 10, Line 48 to Col. 11, Line 12]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of Bluetooth protocol, disclosed by Treyz, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to provide a short-range and low-cost wireless communication link for use between devices within a rather small local area such as in-home network [see Treyz, Col. 10, Lines 20-24 and Col. 11, Lines 1-12].

Regarding claim 6, Thomas does not explicitly teach the wireless communication is implementable through a HomeRF protocol. However, Thomas does suggest the implementation of suitable wireless protocol for communication between server and client [see Thomas, Col. 9, Line 63 to Col. 10, Line 4 and Col. 12, Lines 19-27].

Treyz, in the same field of wireless network communication endeavor, discloses in-home wireless network using wireless protocol such as a HomeRF protocol [see Treyz, Fig. 2 and Col. 9, Line 66 to Col. 10, Line 24 and Col. 10, Line 48 to Col. 11, Line 12]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of HomeRF protocol, disclosed by Treyz, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to provide a short-range and low-cost wireless communication link for use between devices within a rather small local area such as in-home network [see Treyz, Col. 10, Lines 20-24 and Col. 11, Lines 1-12].

Regarding claim 7, Thomas does not explicitly teach the wireless communication is implemented through a plurality of wireless protocols. However, Thomas does suggest the implementation of suitable wireless protocol for communication between server and client [see Thomas, Col. 9, Line 63 to Col. 10, Line 4 and Col. 12, Lines 19-27].

Treyz, in the same field of wireless network communication endeavor, discloses in-home wireless network using a variety of wireless protocols [see Treyz, Fig. 2 and Col. 9, Line 66 to Col. 10, Line 24 and Col. 10, Line 48 to Col. 11, Line 12]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a variety of wireless protocols, disclosed by Treyz, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to provide a short-range and low-cost wireless

communication link for use between devices within a rather small local area such as in-home network [see Treyz, Col. 10, Lines 20-24 and Col. 11, Lines 1-12].

9. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas, U.S. Pat. No. 6,498,939 in view of Haartsen, U.S. Pat. No. 6,590,928.

Regarding claim 3, Thomas does not explicitly teach the wireless communication is implementable through an IEEE 802.11 protocol. However, Thomas does suggest the implementation of suitable wireless protocol for communication between server and client [see Thomas, Col. 9, Line 63 to Col. 10, Line 4 and Col. 12, Lines 19-27].

Haartsen, in the same field of wireless network communication endeavor, discloses wireless local area network (WLAN) using wireless protocol such as a standard IEEE 802.11 protocol [see Haartsen, Col. 1, Line 40 to Col. 2, Line 40]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a standard IEEE 802.11 protocol, disclosed by Haartsen, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to provide a short-range and low-cost wireless communication link for use between devices within a rather small local area such as in-home network.

Regarding claim 4, Thomas does not explicitly teach the wireless communication is implementable at approximately 2.4 GHz. However, Thomas does suggest the implementation of suitable wireless protocol for communication between server and

client [see Thomas, Col. 9, Line 63 to Col. 10, Line 4 and Col. 12, Lines 19-27] and the range of frequency about 2 to 15 GHz [see Thomas, Col. 1, Lines 34-62].

Haartsen, in the same field of wireless network communication endeavor, discloses wireless local area network (WLAN) using wireless protocol such as a standard IEEE 802.11 protocol wherein the system is operated in the 2.4 GHz band [see Haartsen, Col. 1, Line 40 to Col. 2, Line 40]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a standard IEEE 802.11 protocol wherein the system is operated in the 2.4 GHz band, disclosed by Haartsen, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to provide a short-range and low-cost wireless communication link for use between devices within a rather small local area such as in-home network.

Regarding claim 5, Thomas does not explicitly teach the wireless communication is implementable at approximately 5.2 GHz. However, Thomas does suggest the implementation of suitable wireless protocol for communication between server and client [see Thomas, Col. 9, Line 63 to Col. 10, Line 4 and Col. 12, Lines 19-27] and HIPERLAN coverage and outage performance at 5.2 and 17 GHz using indoor 3D Ray tracing technique [see Thomas, Col. 2, Lines 19-27].

Haartsen, in the same field of wireless network communication endeavor, discloses High Performance Radio Local Area Network (HIPERLAN) using wireless protocol such as a standard IEEE 802.11 protocol wherein the system is operated in the

5.2 GHz band [see Haartsen, Col. 13, Lines 14-38]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a standard IEEE 802.11 protocol wherein the system is operated in the 5.2 GHz band, disclosed by Haartsen, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to provide a short-range and low-cost wireless communication link for use between devices within a rather small local area such as in-home network.

10. Claims 8, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas, U.S. Pat. No. 6,498,939 in view of Jones et al (Hereafter, Jones), U.S. Pat. No. 6,108,314.

Regarding claim 8, Thomas does not explicitly teach a wireless router (the router) capable of being wirelessly coupled between the transmitter and the client via a wireless protocol. However, Thomas does suggest one of appliances (5), (7) and (9) is coupled to the server by a high-speed wireless connection (16), (18), (20) wherein the server includes a transmitter or a transceiver [see Thomas, Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23 and Col. 7, Lines 37-51].

Jones, in the same field of wireless network communication endeavor, discloses the implementation of wireless router between devices such as subscriber devices and servers in the wireless network [see Jones, Fig. 1 and Col. 2, Line 40 to Col. 3, Line 3]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a wireless router, disclosed by Jones, into the

system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to perform routing protocols and handle transmission of different types of data [see Jones, Col. 3, Line 62 to Col. 4, Line 21]. Thus, various types of data can be efficiently transferred from one device to another in a wireless communication environment.

Regarding claim 22, Thomas does not explicitly teach a wireless routing means capable of being coupled between the wireless transmission means and the wireless client means. However, Thomas does suggest one of appliances (5), (7) and (9) is coupled to the server by a high-speed wireless connection (16), (18), (20) wherein the server includes a transmitter or a transceiver [see Thomas, Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23 and Col. 7, Lines 37-51].

Jones, in the same field of wireless network communication endeavor, discloses the implementation of wireless router between devices such as subscriber devices and servers in the wireless network [see Jones, Fig. 1 and Col. 2, Line 40 to Col. 3, Line 3]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a wireless router, disclosed by Jones, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to perform routing protocols and handle transmission of different types of data [see Jones, Col. 3, Line 62 to Col. 4, Line 21]. Thus, various types of data can be efficiently transferred from one device to another in a wireless communication environment.

Regarding claim 24, Thomas does not explicitly teach a router subsystem capable of being wirelessly coupled between the transmitter subsystem and the client subsystem. However, Thomas does suggest one of appliances (5), (7) and (9), with a transceiver and an antenna, is coupled to the server by a high-speed wireless connection (16), (18), (20) wherein the server includes a transmitter or a transceiver [see Thomas, Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23 and Col. 7, Lines 37-51].

Jones, in the same field of wireless network communication endeavor, discloses the implementation of wireless router, with controller 221 and memory 222, between devices such as subscriber devices and servers in the wireless network [see Jones, Figs. 1-2 and Col. 2, Line 40 to Col. 3, Line 3]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a wireless router, disclosed by Jones, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to perform routing protocols and handle transmission of different types of data [see Jones, Col. 3, Line 62 to Col. 4, Line 21]. Thus, various types of data can be efficiently transferred from one device to another in a wireless communication environment.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas, U.S. Pat. No. 6,498,939 in view of Callaway, Jr. (Hereafter, Callaway), U.S. Pat. No. 6,711,380.

Regarding claim 9, Thomas does not explicitly teach the client is a wireless smart client. However, Thomas does disclose wireless client as one of appliances (5), (7) and (9) is coupled to the server by a high-speed wireless connection (16), (18), (20) wherein the server includes a transmitter or a transceiver [see Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23 and Col. 7, Lines 37-51].

Callaway, in the same field of wireless network communication endeavor, discloses the implementation of a home wireless network connecting intelligent appliances [see Callaway, Col. 1, Lines 14-45]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of wireless smart client (= intelligent appliance), disclosed by Callaway, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to create a "master-slave" environment in the wireless LAN for the piconet master (= one of controller device (11), (13), (15)) wirelessly controlling and managing all complex operations and program, such that the smart appliance (= slave microwave oven (10)) does little more than acts on very specific commands issued by the master device (for example, turns itself on and off) [see Callaway, Col. 3, Line 13 to Col. 4, Line 5]. Thus, this enables to establish an autonomous local area distributed network like "smart appliances" home network in a configuration that requires only low cost, low bandwidth communication techniques and only an occasional connection to a remote server or a master controller.



12. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas, U.S. Pat. No. 6,498,939 in view of McClard et al (Hereafter, McClard), "Unleashed : Web Tablet Integration into the Home", ACM, April 2000.

Regarding claim 10, Thomas does not explicitly teach the client is a wireless tablet. However, Thomas does suggest the implementation of clients as a variety of appliances including educational terminals, wireless electronic books, PDAs, etc [see Thomas, Col. 4, Lines 62-65 and Col. 5, Line 32].

McClard, in the same field of wireless network communication endeavor, discloses the implementation of client as a wireless tablet [see McClard, Page 1, Left column, third paragraph and Page 1, Right column, second & third paragraphs]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a client as a wireless tablet, disclosed by McClard, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to improve the portability aspect by allowing the user to be unchained and mobilized within a small local area such as in-home network [see McClard, Table 1 on Page 2].

13. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas, U.S. Pat. No. 6,498,939 in view of Nevo et al (Hereafter, Nevo), U.S. Pat. No. 6,600,726.

Regarding claim 12, Thomas does not explicitly teach the client is capable of operation using a first wireless protocol and the second client is capable of operation

using a second wireless protocol. However, Thomas does suggest the implementation of suitable wireless protocol for communication between server and client [see Thomas, Col. 9, Line 63 to Col. 10, Line 4 and Col. 12, Lines 19-27].

Nevo, in the same field of wireless network communication endeavor, discloses one client or device is capable of operation using a first wireless protocol (= wireless network protocol A) and the second client or device is capable of operation using a second wireless protocol (= wireless network protocol B) [see Nevo, Fig. 1 and Col. 3, Lines 30-45 and Col. 4, Lines 36-59]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the implementation of different devices capable of operation using different wireless protocols, disclosed by Nevo, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to enable a device handling concurrent wireless communication with multiple partners of different wireless communication protocols in a very efficient and low cost manner [see Nevo, Col. 1, Lines 58-60].

14. Claims 16 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas, U.S. Pat. No. 6,498,939 in view of Jones et al (Hereafter, Jones), U.S. Pat. No. 6,108,314 and further in view of Treyz et al (Hereafter, Treyz ), U.S. Pat. No. 6,678,215.

Regarding claim 16, Thomas does not explicitly teach a wireless router (the router) capable of being wirelessly coupled between the transmitter and the client via a wireless protocol. However, Thomas does suggest one of appliances (5), (7) and (9) is

coupled to the server by a high-speed wireless connection (16), (18), (20) wherein the server includes a transmitter or a transceiver [see Thomas, Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23 and Col. 7, Lines 37-51].

Jones, in the same field of wireless network communication endeavor, discloses the implementation of wireless router between devices such as subscriber devices and servers in the wireless network [see Jones, Fig. 1 and Col. 2, Line 40 to Col. 3, Line 3]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a wireless router, disclosed by Jones, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to perform routing protocols and handle transmission of different types of data [see Jones, Col. 3, Line 62 to Col. 4, Line 21]. Thus, various types of data can be efficiently transferred from one device to another in a wireless communication environment.

In addition, Thomas and Jones do not explicitly teach the router is capable of wirelessly routing a Bluetooth packet. However, Thomas does suggest the implementation of suitable wireless protocol for communication between server and client [see Thomas, Col. 9, Line 63 to Col. 10, Line 4 and Col. 12, Lines 19-27] and Jones does suggest routing protocols and handle transmission of different types of data in wireless environment [see Jones, Col. 3, Line 62 to Col. 4, Line 21].

Treyz, in the same field of wireless network communication endeavor, discloses in-home wireless network using wireless protocol such as a Bluetooth protocol [see Treyz, Fig. 2 and Col. 9, Line 66 to Col. 10, Line 24 and Col. 10, Line 48 to Col. 11, Line

12]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of Bluetooth protocol, disclosed by Treyz, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas and the system of implementation of wireless router between devices such as subscriber devices and servers in the wireless network disclosed by Jones, in order to provide a short-range and low-cost wireless communication link for routing data between devices within a small local area such as in-home network [see Treyz, Col. 10, Lines 20-24 and Col. 11, Lines 1-12].

Regarding claim 18, Thomas does not explicitly teach a wireless router (the router) capable of being wirelessly coupled between the transmitter and the client via a wireless protocol. However, Thomas does suggest one of appliances (5), (7) and (9) is coupled to the server by a high-speed wireless connection (16), (18), (20) wherein the server includes a transmitter or a transceiver [see Thomas, Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23 and Col. 7, Lines 37-51].

Jones, in the same field of wireless network communication endeavor, discloses the implementation of wireless router between devices such as subscriber devices and servers in the wireless network [see Jones, Fig. 1 and Col. 2, Line 40 to Col. 3, Line 3]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a wireless router, disclosed by Jones, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to perform routing protocols and handle transmission of different

types of data [see Jones, Col. 3, Line 62 to Col. 4, Line 21]. Thus, various types of data can be efficiently transferred from one device to another in a wireless communication environment.

In addition, Thomas and Jones do not explicitly teach the router is capable of wirelessly routing a packet via a HomeRF protocol. However, Thomas does suggest the implementation of suitable wireless protocol for communication between server and client [see Thomas, Col. 9, Line 63 to Col. 10, Line 4 and Col. 12, Lines 19-27] and Jones does suggest routing protocols and handle transmission of different types of data in wireless environment [see Jones, Col. 3, Line 62 to Col. 4, Line 21].

Treyz, in the same field of wireless network communication endeavor, discloses in-home wireless network using wireless protocol such as a HomeRF protocol [see Treyz, Fig. 2 and Col. 9, Line 66 to Col. 10, Line 24 and Col. 10, Line 48 to Col. 11, Line 12]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of HomeRF protocol, disclosed by Treyz, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas and the system of implementation of wireless router between devices such as subscriber devices and servers in the wireless network disclosed by Jones, in order to provide a short-range and low-cost wireless communication link for routing data between devices within a small local area such as in-home network [see Treyz, Col. 10, Lines 20-24 and Col. 11, Lines 1-12].

Regarding claim 19, Thomas does not explicitly teach a wireless router (the router) capable of being wirelessly coupled between the transmitter and the client via a wireless protocol. However, Thomas does suggest one of appliances (5), (7) and (9) is coupled to the server by a high-speed wireless connection (16), (18), (20) wherein the server includes a transmitter or a transceiver [see Thomas, Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23 and Col. 7, Lines 37-51].

Jones, in the same field of wireless network communication endeavor, discloses the implementation of wireless router between devices such as subscriber devices and servers in the wireless network [see Jones, Fig. 1 and Col. 2, Line 40 to Col. 3, Line 3]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a wireless router, disclosed by Jones, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to perform routing protocols and handle transmission of different types of data [see Jones, Col. 3, Line 62 to Col. 4, Line 21]. Thus, various types of data can be efficiently transferred from one device to another in a wireless communication environment.

In addition, Thomas and Jones do not explicitly teach the router is capable of wirelessly routing a packet via a plurality of wireless protocols. However, Thomas does suggest the implementation of suitable wireless protocol for communication between server and client [see Thomas, Col. 9, Line 63 to Col. 10, Line 4 and Col. 12, Lines 19-27] and Jones does suggest routing protocols and handle transmission of different types of data in wireless environment [see Jones, Col. 3, Line 62 to Col. 4, Line 21].

Treyz, in the same field of wireless network communication endeavor, discloses in-home wireless network using a variety of wireless protocols [see Treyz, Fig. 2 and Col. 9, Line 66 to Col. 10, Line 24 and Col. 10, Line 48 to Col. 11, Line 12]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a variety of wireless protocols, disclosed by Treyz, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas and the system of implementation of wireless router between devices such as subscriber devices and servers in the wireless network disclosed by Jones, in order to provide a short-range and low-cost wireless communication link for routing data between devices within a small local area such as in-home network [see Treyz, Col. 10, Lines 20-24 and Col. 11, Lines 1-12].

15. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas, U.S. Pat. No. 6,498,939 in view of Jones et al (Hereafter, Jones), U.S. Pat. No. 6,108,314 and further in view of Haartsen U.S. Pat. No. 6,590,928.

Regarding claim 17, Thomas does not explicitly teach a wireless router (the router) capable of being wirelessly coupled between the transmitter and the client via a wireless protocol. However, Thomas does suggest one of appliances (5), (7) and (9) is coupled to the server by a high-speed wireless connection (16), (18), (20) wherein the server includes a transmitter or a transceiver [see Thomas, Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23 and Col. 7, Lines 37-51].

Jones, in the same field of wireless network communication endeavor, discloses the implementation of wireless router between devices such as subscriber devices and servers in the wireless network [see Jones, Fig. 1 and Col. 2, Line 40 to Col. 3, Line 3]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a wireless router, disclosed by Jones, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to perform routing protocols and handle transmission of different types of data [see Jones, Col. 3, Line 62 to Col. 4, Line 21]. Thus, various types of data can be efficiently transferred from one device to another in a wireless communication environment.

In addition, Thomas and Jones do not explicitly teach the router is capable of wirelessly routing a packet via an IEEE 802.11 protocol. However, Thomas does suggest the implementation of suitable wireless protocol for communication between server and client [see Thomas, Col. 9, Line 63 to Col. 10, Line 4 and Col. 12, Lines 19-27] and Jones does suggest routing protocols and handle transmission of different types of data in wireless environment [see Jones, Col. 3, Line 62 to Col. 4, Line 21].

Haartsen, in the same field of wireless network communication endeavor, discloses wireless local area network (WLAN) using wireless protocol such as a standard IEEE 802.11 protocol [see Haartsen, Col. 1, Line 40 to Col. 2, Line 40]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of a standard IEEE 802.11 protocol, disclosed by Haartsen, into the system of wireless network in enclosed environments such as home



or office disclosed by Thomas and the system of implementation of wireless router between devices such as subscriber devices and servers in the wireless network disclosed by Jones, in order to provide a short-range and low-cost wireless communication link for routing data between devices within a small local area such as in-home network.

16. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas, U.S. Pat. No. 6,498,939 in view of Thompson et al (Hereafter, Thompson), U.S. Pat. No. 6,484,011.

Regarding claim 20, Thomas does not explicitly teach the wireless client is capable of reading a magnetic strip. However, Thomas does suggest one of appliances (5), (7) and (9) is coupled to the server by a high-speed wireless connection (16), (18), (20) wherein the server includes a transmitter or a transceiver [see Thomas, Fig. 1 and Col. 4, Lines 53-57 and Col. 7, Lines 20-23 and Col. 7, Lines 37-51].

Thompson, in the same field of wireless network communication endeavor, discloses the implementation of a wireless device having means for reading a magnetic stripe [see Thompson, Col. 10, Lines 19-21]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the use of wireless device capable of reading a magnetic stripe, disclosed by Thompson, into the system of wireless network in enclosed environments such as home or office disclosed by Thomas, in order to enhance the process of identification in an efficient manner by

allowing a quick retrieval of coded information from the magnetic stripe using a portable and wireless device.

***Other References Cited***

17. The following references cited by the examiner but not relied upon are considered pertinent to applicant's disclosure.

A) Mahany et al, U.S. Pat. No. 6,359,872, discloses wireless personal local area network (WPLAN).

B) Cannon et al, U.S. Pat. No. 6,650,871, discloses wireless piconet networks with Bluetooth and HomeRF technologies.

C) Rautiola et al, U.S. Pat. No. 5,956,331, discloses high performance radio local area network (HIPERLAN).

D) Harrison et al, U.S. Pat. No. 5,796,727, discloses wide area wireless LAN access.

E) Tari et al, U.S. Pat. No. 6,542,491, discloses wireless server system for communicating user terminal devices wirelessly to Internet.

F) Adler et al, U.S. Pat. No. 6,157,630, discloses a radio communications system such as an asymmetric public two-way paging system connects the radio device and the server.

G) Kikinis, U.S. Pat. No. 6,560,214, discloses a system for wireless communication with routers connected to a network and having connected transceivers for wireless transmission and reception of data.

H) Garcia-Luna-Aceves et al, U. S. Pat. No. 6,683,865, discloses system for routing and switching data by using wireless routers.

I) Braley et al, "Wireless Personal Area Networks : An Overview of the IEEE P802.15 Working Group", ACM, Mobile Computing and Communications review, Vol. 4, Issue 1, Jan 2000, discloses IEEE 802 standards (IEEE 802.11 and IEEE 802.15) for wireless personal area networks (WPANs).

18. A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS ACTION IS SET TO EXPIRE THREE MONTHS, OR THIRTY DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. FAILURE TO RESPOND WITHIN THE PERIOD FOR RESPONSE WILL CAUSE THE APPLICATION TO BECOME ABANDONED (35 U.S.C. § 133). EXTENSIONS OF TIME MAY BE OBTAINED UNDER THE PROVISIONS OF 37 CAR 1.136(A).

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Tran whose telephone number is (703) 308-8767. The Group fax phone number is (703) 872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam, can be reached on (703) 308-6662.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

*Philip Tran*  
Philip B. Tran  
Art Unit 2155  
April 26, 2004